



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION III  
1650 Arch Street  
Philadelphia, Pennsylvania 19103-2029**

**SEP 20 2016**

Mr. Bernard Lamoureux  
BN Facility Manager  
Microsoft Corporation  
101 Herbert Drive  
Boydton, VA 23917

RE: Interpretation Request for Emergency Operation During Incidents of Over- and Under-Voltage at Microsoft's East Coast Data Center

Dear Mr. Lamoureux:

The United States Environmental Protection Agency Region III office (EPA R3) received a letter via email on June 16, 2016, as a follow-up to a telephone conversation between your consultant, Andrew Duggan and Erin Willard of EPA R3's Air Protection Division - Office of Enforcement and Compliance Assistance. The letter requests a formal interpretation for the operational scenario for 106 compression ignition engines subject to 40 CFR Part 60 Subpart IIII-Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (Subpart IIII), at Microsoft's East Coast Data Center, located at 101 Herbert Drive, Boydton, Virginia 23917. Specifically, Microsoft asked if operation of the engines during a utility under-voltage condition of 15% or greater and/or an over-voltage condition of 10% or greater of the nominal voltage meets the definition of emergency operation, in light of the May 4, 2016 mandate for the vacatur of two operational provisions for emergency engines in Subpart IIII. The vacatur removed two operational scenarios from the rule that allowed a limited number of operational hours for two purposes, specifically: 1) emergency demand response when the Reliability Coordinator has declared an Energy Emergency Alert Level 2; and 2) when there is a deviation of voltage or frequency of five percent or greater below standard voltage or frequency.

Mr. Duggan indicated in his June 16, 2016 letter, and in follow-up emails and calls, that none of the 106 emergency engines at the facility have ever been part of an emergency demand response or peak shaving program, that Microsoft had no plan to enter into such an agreement, and that the company receives no cost avoidance incentives for operation of the engines. Operation of the engines is restricted to emergency situations to "support critical data center operations infrastructure" summarized at 40 CFR Part 60.4211(f)(1), and for the operational scenarios found at 60.4211(f)(2)(i) (maintenance checks and readiness testing) and 60.4211(f)(3) (operation for up to 50 hours per calendar year for non-emergency uses).



The voltage range at which Microsoft deploys the engines (+10% over-voltage and a +15% under-voltage) partially falls into the voltage range removed from Subpart IIII. Microsoft asked for EPA R3's regulatory interpretation of its operating scenarios outlined above, in order to ensure compliance with Subpart IIII. EPA's Office of Air Quality Planning and Standards (OAQPS) issued a guidance document on April 15, 2016 that stated if a facility was to operate for either of the purposes vacated from the rule, those engines could no longer be classified as emergency only, and as such, would be required to comply with the non-emergency engine emissions standards and other operational provisions required by the rule. For some engines, compliance could require the installation and operation of after-market pollution control devices, or purchase and operation of a newer, certified engine.

Subpart IIII defines an emergency engine at § 60.4219 as a unit that is "operated to provide electrical power or mechanical work during an emergency situation. Examples include stationary ICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted." The vacated provision that had allowed for operation when there is a deviation of voltage or frequency of five percent or greater below standard voltage or frequency was included in Subpart IIII with the intent for the provision to apply to facilities participating in an emergency demand response program.<sup>1</sup> Given that Microsoft has indicated its Boydton facility does not participate in an emergency demand response program, and that the engines are utilized only when electric power from the local public utility is interrupted or otherwise disrupted from a normal operational voltage, as described above, EPA R3 agrees that the vacatur of operational scenario (2) from Subpart IIII does not alter the emergency-only status of the 106 engines currently located at the facility.

If, in the future, Microsoft chooses to enroll in an emergency demand response program for any engine installed at the facility, it will need to revisit its compliance with the requirements of Subpart IIII. If you have any questions regarding this determination, please contact Erin Willard, Environmental Scientist, at 215-814-2152 or [willard.erinm@epa.gov](mailto:willard.erinm@epa.gov).

Sincerely,



Cristina Fernandez, Director  
Air Protection Division

---

<sup>1</sup> See Page 33817 of the Federal Register at <https://www.gpo.gov/fdsys/pkg/FR-2012-06-07/pdf/2012-13193.pdf>, specifically "The circumstances during which the EPA would allow stationary emergency engines to operate for emergency demand response purposes include...plus during periods where there is a deviation of voltage or frequency of 5 percent or more below standard voltage or frequency."